

Geological Technics Inc. _____

Report

Well Abandonment

**City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Avenue
Escalon, California**

**Project No. 750.2
January 12, 2006**

**Prepared for:
Mr. Doug Stidham
City of Escalon
Engineering & Public Works
P.O. Box 248
Escalon, California 95320**

**Prepared by:
Geological Technics Inc.
1101 7th Street
Modesto, California 95354
(209) 522-4119**

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January 12, 2006

Project No. 750.2
Project Name: City of Escalon (Former Arco)

Mr. Doug Stidham
City of Escalon
P.O. Box
Escalon, California 95320

RE: Report: Well Abandonment Report
Location: Former Arco Gas Mini Mart, 1305 Escalon Ave., California

Dear Mr. Stidham:

Geological Technics Inc. is pleased to present the attached Report discussing the Well Abandonment work performed at 1305 Escalon Ave., Escalon, California.

Five (5) water table wells, one (1) deep monitoring well, and four (4) vapor extraction wells were abandoned.

If you have any questions or need additional information, please contact me. Thank you for this opportunity to serve your environmental needs.

Sincerely,

Raynold I. Kablanow II, Ph.D.
Vice President

cc: Lori Duncan – SJC PHS/EHD
Jim Barton - CRWQCB-CVR

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Geological Technics Inc.

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Modesto, California 95354
(209) 522-4119 / Fax (209) 522-4227

Report

Well Abandonment

**City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Ave.
Escalon, California**

Project No. 989.2
January 12, 2006

1.0 INTRODUCTION

The City of Escalon site (COE) is located at 1305 Escalon Ave, Escalon, California in the Highway 120/McHenry Avenue Improvement Project. Figure 1 is a vicinity map and Figure 2 is a site map. This property was previously an Arco Gas and Mini Mart.

Previous work at this site, performed between 1996 and 1999, includes two limited soil borings, soil sample analysis, and the removal of the USTs and pump islands. During removal activities, soil samples were collected which showed the presence of BTEX, TPH-G and MTBE.

On February 12 and 23, 1999 Geological Technics Inc. (GTI) drilled six boreholes, collected soil and groundwater samples (including one groundwater sample from each borehole via hydropunch methods) and tested these samples for petroleum hydrocarbons. Analytical results show the presence of BTEX, TPH-G and oxygenated fuel compounds in the soil and groundwater.

From April of 1999 through January of 2000 three groundwater monitoring wells and four vapor extraction wells were installed on the site. Soil samples collected during the drilling of these wells show low to moderate levels of BTEX, TPH-G, MTBE and TBA in MW-1. Low levels of MTBE were detected in MW-2. Soil samples collected from VEW-1 showed low levels of Xylene and MTBE.

On June 12, 2000, GTI and Del-Tech Geo Technical (Del-Tech) performed a vapor extraction pilot test at the site. Laboratory and field test results indicate the site is conducive to remediation by vapor extraction.

On June 12, 2000, Ms. Lori Duncan of San Joaquin County Environmental Health Department (SJCEHD) requested in writing that a work plan be prepared to define the lateral and vertical extent of the groundwater plume at the site. On June 29, 2000, GTI prepared a work plan proposing the installation of two water table monitoring wells and one deep, discretely screened monitoring well. Ms Duncan approved the work plan on July 7, 2000. The work was performed during the week of October 16, 2000.

On January 30, 2001, GTI prepared and submitted the *Corrective Action Plan (Revised) Vadose Zone Remediation*. The CAP discusses GTI's proposed methodology for mitigation of the documented petroleum hydrocarbon contamination at the site by vapor extraction. The CAP also discusses the confirmation testing outlined in this work plan. Ms Duncan approved the CAP, as submitted, in a letter dated April 02, 2001.

In February 2002 the soil vapor extraction (SVE) system was initiated and has operated for approximately one year. On January 21, 2003, GTI submitted the *Vapor Extraction Treatment System Monitoring Report*. The report indicated that approximately 50% of the petroleum hydrocarbons contained in the subsurface have been removed, the groundwater at this site is free of petroleum hydrocarbon contamination, and possibly as much as 600 gallons of gasoline may remain in the vadose zone. The report also recommended that the site be considered for closure.

In a letter dated February 18, 2003, SJCEHD requested that the well extraction cycle be utilized to address lower screen intervals and that GTI may consider switching methods of contaminant destruction, such as changing to carbon canisters to lower operational costs.

On March 28, 2003, GTI submitted the *Additional Site Characterization – Soil Borings Work Plan*. Ms Duncan approved the work plan, with reservation, in a letter dated April 8, 2003. The soil borings were advanced on September 5, 2003 and GTI submitted the resulting *Interim Soil Investigation Report* on October 2, 2003. As per the April 8, 2003 SJCEHD directive, the SVE system was restarted on December 9, 2003 and ran until January 14, 2004.

A new vapor extraction – granulated activated carbon (SVE-GAC) system was installed during the summer of 2004. The SVE-GAC was started on September 24, 2004 and ran until April 12, 2005. The SVE-GAC was not operational, due to repairs, for three weeks between December 2004 and January 2005.

On May 16, 2005, GTI prepared and submitted a *Risk Evaluation & Appendix B Site Closure Checklist* recommending the COE site be considered for No Further Action. On July 13, 2005, SJCEHD submitted a *Case Closure Summary* to the CRWQCB. The CRWQCB concurred with SJCEHD's recommendations in a letter dated July 28, 2005. Both correspondences are included in Appendix B.

In a letter dated August 3, 2005, SJCEHD requested a work plan for destruction of all groundwater monitoring and remediation wells at the site. On August 11, 2005, GTI submitted the *Work Plan – Well Abandonment*. Ms Duncan approved the work plan with notation on well

abandonment procedure in a letter dated August 31, 2005. The following report discusses the destruction/abandonment of all wells associated with the COE site.

2.0 WELL ABANDONMENT

There were five (5) water table, one (1) deep monitoring and four (4) vapor extraction wells associated with the COE site. GTI properly decommissioned these wells in an effort to meet requirements leading to a "No Further Action Letter". All monitoring wells associated with the site were monitored regularly and were in good condition. No obstacles were observed in any well. A summary of well construction is included as Table 1 in Appendix A and well locations are denoted in Figure 2.

Woodward Drilling Company of Rio Vista, California (C-57 Lic #710079) was employed to decommission the wells associated with the COE site. Permits were secured as necessary and the local regulatory agency was notified 48 hours prior to commencing work.

There was a large vault constructed on-site that housed the manifold for the vapor extraction system. Del-Tech Geotechnical Support Services using a backhoe removed the vault. The manifold was removed from the wellheads and associated piping.

Wells: MW-1, MW-2, MW-4, MW-5, MW-101, VEW-3 and VEW-4

These wells, located on-site, were of typical vertical well construction. These wells were abandoned using the following procedure:

- The well box and supporting concrete apron were removed by backhoe.
- A vacuum truck and "wet" knife were used to excavate a hole approximately 1-foot larger in diameter than the original borehole around the annular to a depth of approximately 3 feet below grade.
- The soil was stored, on-site, in DOT approved steel drums until disposal was arranged.
- Grout was pumped into each well casing using ¾ inch diameter tremie pipe while displaced water was pumped into a DOT approved steel drum until disposal was arranged. It was noted that very little displaced water was present.
- Pressure of approximately 35 psi was applied to each well casing for approximately 5 minutes.
- The well casing was then cut off approximately 6-inches above the base of the excavated hole.
- Grout was pumped into the "cut" well casing and allowed to mushroom over the casing and fill the bottom 12 to 18 inches of the excavated hole.
- The excavated hole was backfilled to grade with clean overburden.

Wells: VEW-1 and VEW-2

These wells were located approximately 20 feet east of the site beneath Escalon Avenue. The vertical extraction wells were connected to the manifold, located in the vault discussed above, by

horizontal lengths of 3-inch diameter PVC. These wells were abandoned using the following procedure:

- The horizontal section of PVC pipe was exposed, by excavating a trench, as close to the sidewalk as possible using a backhoe.
- The horizontal sections were cut as close as possible to the sidewalk.
- Tremie pipe was run through the horizontal section of PVC to the 90° PVC elbow that linked horizontal and vertical casing.
- Grout was pumped into each well casing through the ¾ inch diameter tremie pipe and was allowed to freefall into the vertical section. This procedure was repeated until the entire length of casing was filled.
- Grout was pumped into the “cut” horizontal PVC and allowed to mushroom over the PVC and fill the bottom 12 to 18 inches of the trench.
- The excavated trench was backfilled to grade with clean overburden.

Well: MW-3

This well was located in the narrow median along Escalon Avenue. These wells were abandoned using the following procedure:

- The well box and associated concrete apron were removed by jackhammer, carefully avoiding damaging the median.
- A vacuum truck and “wet” knife were used to excavate a hole to a depth of approximately 1 foot below grade.
- Grout was pumped into the well casing using ¾ inch diameter tremie pipe while displaced water was pumped into a DOT approved steel drum until disposal was arranged. It was noted that very little displaced water was present.
- Pressure of approximately 35 psi was applied to the well casing for approximately 5 minutes.
- The well casing was then cut off approximately 8-inches below grade.
- Grout was pumped into the “cut” well casing and allowed to mushroom over the casing to approximately 4-inches below the bricks used to pave the median.
- The grout was allowed to dry overnight and GTI mobilized to the site the following day and cemented in new pavers to match the brickwork used in the median.

3.0 SOIL DISPOSAL

On January 12, 2006, Del-Tech Geotechnical Support Services transported 17,460 pounds of clean soil and concrete removed from the COE site during well abandonment activities. The soil and concrete were transported to Munn & Perkins Reclamation, 26292 East River Road, Escalon, CA 95320 to be recycled. The scale ticket is included as Appendix C.

4.0 SCHEDULE & REPORTING

The information gathered during this phase of work is presented in this report in an effort to meet the requirements of obtaining a "No Further Action Letter". Dr. Ray Kablanow, a registered professional geologist, supervised the project. Copies of the report will be forwarded to both the appropriate County and State regulatory agencies (SJCEHD and CRWQCB).

5.0 SIGNATURE & CERTIFICATION

Geological Technics Inc. performed this project in accordance with accepted geologic and hydrologic standards of the State of California accepted and in effect at the time of this investigation. Geological Technics Inc. is not responsible for undisclosed conditions.

This report was prepared by:

Eric L. Price
Project Geologist

Raynold Kablanow II, Ph.D.
California Professional Geologist #5234
Certified Hydrogeologist #442



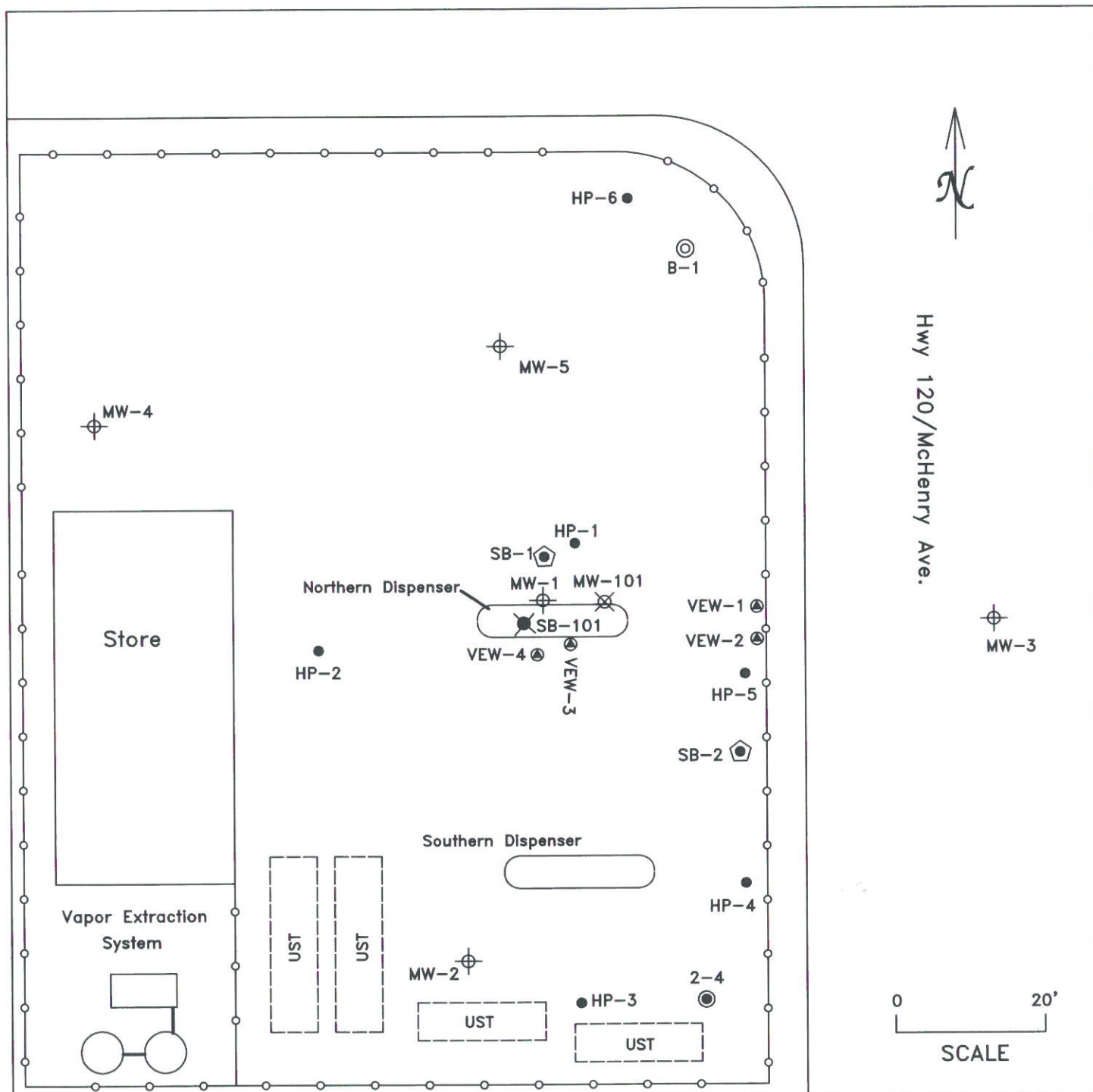


Fig 2: Site Map

City of Escalon
Former Arco Gas Mini Mart
1305 Escalon Ave.
Escalon, CA
Project No. 750.2

Geological Technics Inc.

4/28/05

LEGEND

- | | | | |
|---|-----------------------------|---|-------------------------------|
| ⊙ | Soil Boring - June 1996 | ⬢ | Soil Borings - September 2003 |
| ● | Soil Boring - March 1997 | ⊕ | Monitoring Well |
| ● | Soil Boring - February 1999 | ⊗ | Vapor Extraction Well |
| ⊗ | Soil Boring - October 2000 | ⬢ | Former UST |
| ⬢ | Dispenser | | |

Appendix A

Summary Data Tables

Table 1: Summary of Well Construction

City of Escalon-Former Arco Mini Mart
1305 Escalon Ave.
Escalon, CA
Project No. 750.2

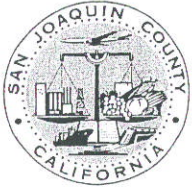
Well/Boring Type	Well/Boring Number	Status	Date Drilled	Total Depth (ft)	Boring Diameter (in)	Well Casing Diameter (in)	Casing Type	Slot Size (in)	Sand Type	Well Screen		Filter Pack		Annular Seal		Grout Seal	
										From	To	From	To	From	To	From	To
Monitoring	MW-1		7/30/1999	75	8.5	2	PVC	0.020	#3	75	55	75	53				
Monitoring	MW-2		4/29/1999		10	2	PVC	0.020	#3					53	50	50	S
Monitoring	MW-3		6/11/1999	75	8	2	PVC	0.020	#3	75	55	75	53	53	51	51	3
Monitoring	MW-4		10/18/2000	76	8	2	PVC	0.020	#3	75	55	75	53	53	51	51	3
Monitoring	MW-5		10/18/2000	80	8	2	PVC	0.020	#3	78	63	78	60	60	58	58	S
Monitoring	MW-101		10/19/2000	76	8	2	PVC	0.020	#3	75.0	60	75	58	58	55.5	55.5	S
Vapor Extraction	VEW-1		10/18/2000	95	6	2	PVC	0.020	#3	87	85	89	86	86	83	83	S
Vapor Extraction	VEW-2		4/29/1999	55	10	4	PVC	0.040	Pea Gravel	55	40	55	38	38	36	36	5
Vapor Extraction	VEW-3		4/29/1999	27	10	4	PVC	0.040	Pea Gravel	27	10	27	8.5	8.5	6.5	6.5	5
Vapor Extraction	VEW-4		7/30/1999	55	10	4	PVC	0.040	Pea Gravel	54	39	55	37	37	35	35	S
Vapor Extraction	VEW-4		7/30/1999	27	10	4	PVC	0.040	Pea Gravel	27	12	27	10	10	8	8	S

Appendix B

Regulatory Agency Closure Documents

ENVIRONMENTAL HEALTH DEPARTMENT

SAN JOAQUIN COUNTY



Donna K. Heran, R.E.H.S.
Director
 Al Olsen, R.E.H.S.
Program Manager
 Laurie A. Cotulla, R.E.H.S.
Program Manager

304 East Weber Avenue, Third Floor
 Stockton, California 95202-2708
 Telephone: (209) 468-3420
 Fax: (209) 464-0138
 Website: www.sjgov.org/ehd/

Unit Supervisors
 Carl Borgman, R.E.H.S.
 Mike Huggins, R.E.H.S., R.D.I.
 Douglas W. Wilson, R.E.H.S.
 Margaret Lagorio, R.E.H.S.
 Robert McClellon, R.E.H.S.
 Jeff Carruesco, R.E.H.S.

DOUG STIDHAM
 CITY OF ESCALON
 PO BOX 248
 ESCALON CA 95320

KULJIT MANGAT
 622 CLAY WAY
 RIPON CA 95336

AUG 31 2005

RE: South County Food & Fuel
 1305 Escalon Avenue
 Escalon CA 95320

SITE CODE: 1487

San Joaquin County Environmental Health Department (SJC/EHD) has reviewed *Work Plan – Well Abandonment* dated August 11, 2005, prepared and submitted on your behalf by Geological Technics Inc. (GTI) and has the following comments.

The work plan proposes the destruction by pressure grouting of six groundwater monitoring wells and four soil vapor extraction wells.

San Joaquin County well standards require wells destroyed by pressure grouting to be surface completed by excavation of a hole at least one-foot larger in diameter than the original borehole around the well casing, to a depth of three feet below surface grade. The well casing shall then be cut six inches above the bottom of the excavation. After the well casing has been properly filled with grout and pressurized, the cement grout will be allowed to pour over the top of the cut casing to form a mushroom cap at least one-foot thick in the excavation. Monitoring wells MW-1, MW-2, MW-4, MW-5 and MW-101, and vapor wells VEW-3 and VEW-4 shall be completed in the above described manor.

Vapor wells VEW-1 and VEW-2 were located near the eastern edge of the site; these wells were subsequently covered with the sidewalk and/or part of Escalon Avenue. Prior to completion of the road construction these wells were connected to underground conveyance piping laid in a 4-foot deep trench that ended in a common vault near VEW-3 and VEW-4 in the center of the site. VEW-1 has a total depth of 55 feet below surface grade (bsg); VEW-2 has total depth of 27 feet bsg. GTI has proposed destruction of these well by pumping grout to total depth of each well through 1-inch diameter poly tubing, followed by pressurization. SJC/EHD approves this method with the condition that GTI verifies that the appropriate length of tubing is installed in each well to ensure the grout reaches the bottom of the well, and that an appropriate minimum quantity of grout is used in the destruction. The horizontal piping may have to be cut back from the vault area to ensure proper surface completion of VEW-3 and VEW-4.

Monitoring well MW-3 is located in a narrow curb median In the middle of Escalon Ave. This well can be destroyed per the procedure proposed in the work plan.

Page 2, 1305 Escalon Ave.

Please proceed with submittal of a San Joaquin County Well Destruction Permit Application with the required \$60.00 permit fee and \$279.00 permit inspection fee (total \$339.00) for each parcel of land on which work will proceed. Please submit a copy of the City of Escalon Encroachment Permit for destruction of MW-3 with the permit application.

If you have any questions please call Lori Duncan at (209) 468-0337.

Donna Heran, REHS, Director
Environmental Health Department

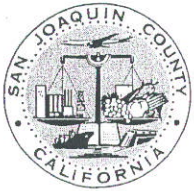


Lori Duncan, Senior REHS
LOP/Site Mitigation Unit IV



Margaret Lagorio, Supervising REHS
LOP/Site Mitigation Unit IV

cc: James Barton, CVRWQCB
Eric Price, GTI



RECEIVED AUG 04 2005

ENVIRONMENTAL HEALTH DEPARTMENT SAN JOAQUIN COUNTY

Donna K. Heran, R.E.H.S.
Director
Al Olsen, R.E.H.S.
Program Manager
Laurie A. Cotulla, R.E.H.S.
Program Manager

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Robert McClellon, R.E.H.S.
Jeff Carruesco, R.E.H.S.

AUG 03 2005

DOUG STIDHAM
CITY OF EXCALON
PO BOX 248
ESCALON CA 95320

KULJIT MANGAT
622 CLAY WAY
RIPON CA 95366

RE: South County Food & Fuel
1305 Escalon Avenue
Escalon CA 95320

SITE CODE: 1487

San Joaquin County Environmental Health Department (SJC/EHD) has received concurrence from the Regional Water Quality Control Board, Central Valley Region on the determination that "no further action is required" for the above referenced site. To proceed with the closure of this site, please submit to SJC/EHD a work plan for destruction of all groundwater monitoring and remediation wells at this site. San Joaquin County well standards must be followed for proper destruction of the wells.

If you have any questions or comments please call Lori Duncan at (209) 468-0337.

Donna Heran, REHS, Director
Environmental Health Department

Lori Duncan

Lori Duncan, Senior REHS
LOP/Site Mitigation Unit IV

Margaret Lagorio
Margaret Lagorio, Supervising REHS
LOP/Site Mitigation Unit IV

cc: James Barton, CVRWQCB
Ray Kablanow, Geological Technics, Inc.



California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Alan C. Lloyd, Ph.D.
Secretary for
Environmental
Protection

11020 Sun Center Drive #200 Rancho Cordova, CA 95670-6114
(916) 464-3291 • Fax (916) 464-4704
<http://www.swrcb.ca.gov/rwqcb5>



Arnold Schwarzenegger
Governor

28 July 2005

Ms. Margaret Lagorio
Supervising REHS
San Joaquin County Environmental Health Department
304 East Weber Avenue, Third Floor
Stockton, CA 95202

RECEIVED

AUG 01 2005

CITY OF ESCALON

***NO FURTHER ACTION REQUIRED CONCURRENCE, CITY OF ESCALON AND FORMER
ARCO STATION, 1305 ESCALON AVENUE, ESCALON, SAN JOAQUIN COUNTY***

Board staff reviewed the 13 July 2005 Case Closure Summary submitted by the San Joaquin County Environmental Health Department (County) and the site file for the above referenced site. With the provision that the information provided to this agency was accurate and representative of site conditions, Board staff concur with the County's closure recommendation.

Until we receive notification from you that monitoring wells have been properly destroyed, transferred, or will remain in use according to the County Well Ordinance, and the County issues a Case Closure Letter, the site will be considered an open case.

If you have any questions, please call Jim Barton at (916) 464-4615.

Brian Newman

BRAIN NEWMAN
Underground Tank Program Manager
Central Valley Region

Enclosure (NFAR Checklist)

cc: Mr. Alan Patton, SWRCB Cleanup Fund, Sacramento
Ms. Lori Duncan, Senior REHS, San Joaquin County Environmental Health Department,
304 East Weber Avenue, Third Floor, Stockton, CA 95202
Mr. Doug Stidham, City of Escalon, P.O. Box 248, Escalon, CA 95320
Mr. Kuljit Mangat, 622 Clay Way, Ripon, CA 96366

**TABLE 1 - CHECKLIST OF REQUIRED DATA
FOR NO FURTHER ACTION REQUESTS AT UNDERGROUND TANK SITES**

Site Name and Location: City of Escalon/Former ARCO station, 1305 Escalon Ave., Escalon, San Joaquin County	
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Distance to production wells for municipal, domestic, agriculture, industry and other uses within 2000 feet of the site;</p> </div> <div style="width: 50%;"> <p>A well survey in 2000 shows two public water supply wells are located approximately 1600 feet north and 1800 feet southwest of the site. One irrigation well is located approximately 750 feet to the northeast.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>2. Site maps, to scale, of area impacted showing locations of former and existing tank systems, excavation contours and sample locations, boring and monitoring well elevation contours, gradients, and nearby surface waters, buildings, streets, and subsurface utilities;</p> </div> <div style="width: 50%;"> <p>One 8,000-gallon and two 10,000-gallon gasoline USTs were removed in 9/98.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>3. Figures depicting lithology (cross section), treatment system diagrams;</p> </div> <div style="width: 50%;"> <p>Site lithology consists of sand, silt and clay to 115 feet, the total depth investigated.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>4. Stockpiled soil disposed off-site (quantity);</p> </div> <div style="width: 50%;"> <p>The fate of approximately 100 cubic yards of contaminated excavated soil was not reported.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>5. Monitoring wells remaining on-site, fate;</p> </div> <div style="width: 50%;"> <p>Six monitoring wells (MW-1 through MW-5, and MW-101), installed for this investigation, will be properly destroyed.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>6. Tabulated results of all groundwater elevations and depths to water;</p> </div> <div style="width: 50%;"> <p>The depth to water varied from 61 feet (2000) to 65 feet (2005). The groundwater flow direction varied from west to northwest.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>7. Tabulated results of all sampling and analyses:</p> <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Y Detection limits for confirmation sampling <input checked="" type="checkbox"/> N Lead analyses </div> </div> <div style="width: 50%;"> <p>Confirmation soil results in 11/98 were 6,200 mg/kg, TPHg; 2.64 mg/kg, benzene; 220 mg/kg, toluene; 140 mg/kg, ethylbenzene; 730 mg/kg, xylenes, and 8 mg/kg, MtBE. After Soil Vapor Extraction (SVE) in 9/03, soil results were 3,130 mg/kg, TPHg; 1.9 mg/kg, toluene; 30.4 mg/kg, ethylbenzene; and 194 mg/kg, xylenes. Groundwater monitoring results on 4/00 were 516 µg/L, TPHg; 62 µg/L, benzene; 42 µg/L, toluene; 10 µg/L, ethylbenzene; 57 µg/L, xylenes; and 220 µg/L, MtBE. In 5/05, groundwater monitoring results were all ND.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>8. Concentration contours of contaminants found and those remaining in soil and groundwater, both on-site and off-site:</p> <div style="margin-left: 20px; display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input checked="" type="checkbox"/> Y Lateral and <input checked="" type="checkbox"/> Y Lateral and </div> <div style="width: 45%;"> <input checked="" type="checkbox"/> Y Vertical extent of soil contamination <input checked="" type="checkbox"/> Y Vertical extent of groundwater contamination </div> </div> </div> <div style="width: 50%;"> <p>The extent of contamination is defined by on-site soil borings and monitoring wells.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>9. Zone of influence calculated and assumptions used for subsurface remediation system and the zone of capture attained for the soil and groundwater remediation system;</p> </div> <div style="width: 50%;"> <p>SVE, the engineered remediation system, removed approximately 1,013 gallons of gasoline from soil at this site.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>10. Reports / information</p> <div style="margin-left: 20px; display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input checked="" type="checkbox"/> Y Unauthorized Release Form <input checked="" type="checkbox"/> Y Boring logs </div> <div style="width: 45%;"> <input checked="" type="checkbox"/> Y PAR <input checked="" type="checkbox"/> Y FRP </div> </div> </div> <div style="width: 50%;"> <p><input checked="" type="checkbox"/> Y QMRs 22 QMRs from 4/00 to 5/05. <input checked="" type="checkbox"/> Y Other Site Closure Report</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>11. Best Available Technology (BAT) used or an explanation for not using BAT;</p> </div> <div style="width: 50%;"> <p>Remove USTs, SVE and natural attenuation.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>12. Reasons why background was/is unattainable using BAT;</p> </div> <div style="width: 50%;"> <p>Groundwater contamination is no longer present. Minor soil contamination remains on-site.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>13. Mass balance calculation of substance treated versus that remaining;</p> </div> <div style="width: 50%;"> <p>Approximately 56 gallons of gasoline remain in soil onsite.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>14. Assumptions, parameters, calculations and model used in risk assessments, and fate and transport modeling; and</p> </div> <div style="width: 50%;"> <p>A limited risk assessment was conducted in the Site Closure Report.</p> </div> </div>
<input checked="" type="checkbox"/> Y	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>15. Rationale why conditions remaining at site will not adversely impact water quality, health, or other beneficial uses.</p> </div> <div style="width: 50%;"> <p>Although minor soil contamination is present onsite, based on 22 groundwater sampling events, petroleum hydrocarbons are not continuing to leach to groundwater.</p> </div> </div>
By: JLB	Comments: One 8,000-gallon and two 10,000-gallon gasoline USTs were removed from the subject site in 9/98. Confirmation soil results in 11/98 were 6,200 mg/kg, TPHg; 2.64 mg/kg, benzene; 220 mg/kg, toluene; 140 mg/kg, ethylbenzene; 730 mg/kg, xylenes, and 8 mg/kg, MtBE. After Soil Vapor Extraction (SVE) in 9/03, soil results were 3,130 mg/kg, TPHg; 1.9 mg/kg, toluene; 30.4 mg/kg, ethylbenzene; and 194 mg/kg, xylenes. Groundwater monitoring results on 4/00 were 516 µg/L, TPHg; 62 µg/L, benzene; 42 µg/L, toluene; 10 µg/L, ethylbenzene; 57 µg/L, xylenes; and 220 µg/L, MtBE. In 5/05, groundwater monitoring results were all ND. Based on the low levels of residual soil contamination and no petroleum hydrocarbons leaching into groundwater, Regional Board staff concur with San Joaquin County's Closure Recommendation.
Date: 7/27/05	

Appendix C

Soil Scale Ticket

COE

GEORGE REED, INC.

General Engineering Contractor
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